Proposed 15-day modifications: Amendments proposed during the 45-day notice period are shown with underline for additions and with ~~strikeout for deletions.~~ Modifications to the proposal are shown with *italic for additions* and with ~~*italic strikeout for deletions.*~~

3 APPLICATION FOR CERTIFICATION

Warning: All of the information specified in all of the following subsections must be submitted to the ARB Executive Officer for an application to be considered complete.

Applications which do not completely satisfy the requirements of this section shall be returned to the applicant with an indication of deficiencies.

3.1 General

3.1.1 An application for certification of a vapor recovery system (Phase I or Phase II) may be made to the ARB Executive Officer by any applicant.

3.1.2 The application shall be in writing, signed by an authorized representative of the applicant, and shall include the following:

(1) A detailed description of the configuration of the vapor recovery system including but not limited to the following:

(a) The underground plumbing and tankage configuration and specifications (pipe sizes, lengths, fittings, volumes, material(s), etc.);
(I) drawings of the intended system before installation;
(ii) drawings of the actual system after installation;

(b) Gasoline dispensing nozzle and other hanging hardware to be used for Phase II;

(c) Engineering parameters for pumps, nozzles, hanging hardware, and vapor processing units to be used as part of the vapor recovery system; and

(d) Allowable pressure drops through the system as a whole and for each system component.

(2) Evidence demonstrating the vapor recovery reliability of the system or device for a minimum of 90 days;

(3) A description of tests performed to ascertain compliance with the general standards, and the results of such tests;

(4) A statement of recommended maintenance procedures, equipment performance checkout procedures, and equipment necessary to assure that the vapor recovery system, in operation, conforms to the regulations, plus a description of the program for training personnel for such maintenance, and the proposed replacement parts program;

(5) Two copies of the service and operating manuals that will be supplied to the purchaser;

(6) A statement that a vapor recovery system, installed at an operating facility, will be available for certification testing no later than one month after submission of the application for certification. The facility submitted for certification testing shall have a minimum throughput of 100,000 gallons per month and shall include at least six nozzles of each type submitted for approval. There shall not be more than two types of nozzles connected to a common vapor volume.

(7) The estimated retail price of the system and separate estimates of both the installation and yearly maintenance costs;

(8) A copy of the warranty or warranties provided with the system;

(9) If the application is for a system previously tested, but not certified, the application shall include identification of the system components which have been changed; including all new physical and operational characteristics; together with any new test results obtained by the applicant.

(10) If the applicant is not the manufacturer of all system components, the applicant shall include evidence of notification of ~~*all*~~ component manufacturers of the applicant's intended use of the component manufacturers' equipment in the vapor recovery system for which the application is being made.

(a) When the applicant is requesting inclusion of one or more components on a certified system, the applicant shall notify the manufacturer, if any, named as the applicant or holder of the executive order for the certified system.

(b) When the applicant is requesting certification of one or more components as part of a new system, the applicant shall notify all manufacturers.

(~~10~~11) Such other information as the Executive Officer the ARB Executive Officer may reasonably require.

3.2 Evidence of Corporate and Financial Responsibility

3.2.1 The requirements of this section shall apply with equal stringency both to original manufacturers and to rebuilders of vapor recovery equipment.

3.2.2 Any manufacturer of vapor recovery system equipment shall provide a warranty of at least ~~one year~~ ~~*three years*~~ *one year* for the vapor recovery system equipment. ~~*An exception to the warranty requirement may be made for those components of the system which are identified in the maintenance manual as having expected useful lives of less than three years; The warranty in these cases may specify the expected life.*~~

3.2.3 The manufacturer of any vapor recovery system equipment shall affix a warranty tag to certified equipment that shall only be removed by the owner/operator of the vapor recovery equipment. The tag shall contain at least the following information:

(1) Notice of warranty period

(2) Date of manufacture

(3) Shelf life of equipment or sell-by date, if applicable

3.2.~~3~~*4* The manufacturer of any vapor recovery system equipment shall warrant in writing to the ultimate purchaser and each subsequent purchaser within the warranty period that such vapor recovery system equipment is:

(1) Designed, built, and equipped so as to conform at the time of sale with the applicable regulations; and

(2) Free from defects in materials and workmanship which cause such vapor recovery system to fail to conform with applicable regulations for at least ~~one year~~ the warranty period.

3.2.~~4~~*5* The adequacy of methods of distribution, replacement parts program, the financial responsibility of the manufacturer, the financial responsibility of the applicant, and other factors affecting the economic interests of the system purchaser shall be evaluated by the ARB Executive Officer and determined by him or her to be satisfactory to protect the purchaser. A determination of financial responsibility by the ARB Executive Officer shall not be deemed to be a guarantee or endorsement of the manufacturer or applicant.

3.2.~~5~~*6* A fee not to exceed the actual cost of certification will be charged by the ARB to each applicant submitting system(s) for certification. The applicant is required to

demonstrate ability to pay the cost of testing prior to certification and performance testing. This may take the form of posting a bond of not less than $20,000. An Executive Order certifying the system will not be issued until the test fee has been paid in full to the ARB.

3.3 Design

3.3.1 Engineering Drawings

The applicant shall submit engineering drawings for:

(1) each prototype vapor recovery system and

(2) all equipment components of each prototype system.

For any component, in lieu of a component drawing, the applicant can submit an affidavit declaring:

(1) the manufacturer's model number for the component and

(2) the applicant's commitment to maintain, on file, engineering drawings for such component.

3.3.2 List of Components by Manufacturer and Model Number

The applicant shall submit a list of components by manufacturer and model number for the vapor recovery system.

3.3.3 Indicating Gauges, Detection Devices, and Alarms

Indicating gauges, detection devices, alarms, or combination thereof, shall be included in each control system as required to enable monitoring of the critical system operating parameters. The gauges and alarms shall serve to alert and warn the gasoline service station owner or operator with an audible signal or warning light when the gasoline vapor control system is malfunctioning. Such gauges and alarms shall, as applicable, include temperature and pressure indicators, pass/fail hydrocarbon detectors, etc. These shall indicate the performance of critical components such as aspirators, vacuum pumps, incinerators, compressors, carbon canisters, etc.

Specific examples of necessary devices are: temperature indicators installed in control systems which utilize refrigeration as a control technique; pressure indicators installed in control systems which utilize compression as a control technique; hydrocarbon breakthrough detectors installed in control systems which utilize carbon adsorption or flexible bladders or seals as a control technique, and pressure differential indicators on vapor return lines to detect liquid blockage of the lines.

The results of evaluation and testing of the system, documented in the certification test report, shall include:

(1) the identification of such critical system operating parameters,

(2) the performance specifications for such critical system operating parameters, and

(3) the specification of requirements for indicating gauges, detection devices, and alarms.

3.4 Installation, Operation, Maintenance, and Inspection

3.4.1 Compliance Conditions for Facility and System

The specification of a matrix of compliance conditions for installation, operation, maintenance, and inspection for any facility using a vapor recovery system certified by this procedure is a crucial part of the certification process. Such a matrix shall form a limiting envelope inside which are conditions of compliance and outside which are conditions of violation. Certification testing shall be conducted to characterize the facility and system inside this limiting envelope. More detail is provided below and in § 5.

The applicant shall submit an Installation, Operation, and Maintenance Manual and an Inspection Manual which provide clear, detailed, step-by-step instructions for installation, operation, maintenance, and inspection of a vapor recovery system at a dispensing facility. Such manuals shall be written so that, with regard to the compliance conditions imposed by this procedure:

(1) when such instructions are followed by facility owners and operators, or their contractors, a system will meet its compliance conditions, barring unforeseen design or equipment failure and

(2) when such instructions are followed by facility owners and operators, or their contractors, or inspecting agencies any violation of compliance conditions by a system will be detected, barring intermittent problems.

The Installation, Operation, and Maintenance Manual and the Inspection Manual shall be subject to review and processing per § 2.2. A preliminary engineering evaluation shall be performed per § 5 to determine any deficiencies in either manual. Any such deficiencies, which can be remedied before official certification testing for the performance standard with a representative vehicle matrix, shall be so remedied. Any other deficiencies determined before, during, or after such official certification testing shall be remedied before certification per § 7.

To further augment compliance efforts by facility owners and operators, or their contractors, and by inspecting agencies, the ARB Executive Officer may, at any time

before or after certification per § 7, add or delete instructions from either manual and distribute revised manuals.

At the applicant's option, the two manuals may be bound under one cover but separate sections must be written to meet their distinct requirements as specified below.

3.4.2 Installation, Operation, and Maintenance Manual

Two copies of an installation, operation, and maintenance manual shall be submitted to the ARB Executive Officer for each vapor recovery system submitted for certification. The manual shall, at a minimum, contain:

(1) Identification of critical operating parameters affecting system operation, e.g., maximum dispensing rates; liquid to vapor flow rate ratios, or the inverse of such ratios; air to liquid volumetric ratios; pressures; etc. The operating range of these parameters associated with normal, in-compliance operation of the control system shall be identified. These operating data shall be determined and/or verified during the period of certification and performance testing of the system.

(2) Identification of specific maintenance requirements and maintenance schedules necessary to ensure on-going operation in compliance with the applicable standards. Maintenance requirements shall be clearly identified as being capable of performance by the operator, or as requiring authorized service only. Operating manuals shall provide clear instruction on operator maintenance and shall provide clear warnings against unauthorized service. Maintenance schedules shall, at a minimum, reflect the life of individual components such as regulators, compressors, nozzles, pressure vacuum valves, catalysts, combustor components, etc. Systems requiring maintenance which the Executive Officer finds unreasonable will be disapproved.

(3) Identification of system components for each control system certified. Components shall, as applicable, be identified by brand name, part number, and/or performance characteristics. The identification shall be sufficiently clear so as to allow determination of comparability between tested and untested models, and/or to allow determination of the adequacy of replacement parts.

(4) A warranty statement which complies with the requirements of § 3.2.

(5) All pages with an 8.5 x 11 inch format with holes for a standard 3-ring binder.

3.4.3 Inspection Manual

Two copies of an inspection manual shall be submitted to the ARB Executive Officer for each vapor recovery system submitted for certification. The manual shall, at a minimum, contain:

(1) Step-by-step instructions for inspecting a vapor recovery system for installation, operation, and maintenance; including:

(a) instructions for performing test procedures for inspection, with specific details for such vapor recovery system including, but not limited to:

(i) accessing equipment for inspection testing,

(ii) preparing equipment for inspection testing,

(iii) subjecting equipment to inspection testing, and

(iv) returning equipment to pre-inspection status;

(b) test procedures for inspection;

(c) references for each test procedure for inspection either to:

(I) an ARB adopted or alternative test procedure or

(ii) another test procedure submitted by the applicant; and

(2) all pages with an 8.5 x 11 inch format with holes for a standard 3-ring binder.

3.5 Compatibility

This section specifies vapor recovery system compatibility requirements which, although not specified in terms of vapor recovery effectiveness, form an indispensable basis for proceeding with the application of the appropriate certification and test procedures.

These compatibility requirements are necessary because the plumbing and pumping equipment and systems for vapors and liquids at a dispensing facility constitute an integral part of the vapor recovery system associated with such facility.

Phase II systems must be capable of fueling, without the use of nozzle spout extenders, any motor vehicle that may be fueled at service stations not equipped with vapor recovery systems.

3.5.1 Vapor Recovery System and Equipment

The installation, operation, and maintenance of a vapor recovery system and equipment must be compatible with:

(1) the application of performance standards, performance specifications, and test procedures;

(2) the existence of a two inch minimum inside diameter for vapor plumbing or a

certified back pressure performance specification; and

(3) the installation, operation, and maintenance of any other dispensing facility equipment or systems associated with such vapor recovery system.

Requirement (2) above applies without exception to all new installations, as defined in D-200.

3.5.2 Dispensing Facility Equipment and Systems

The installation, operation, and maintenance of the equipment and systems at a dispensing facility with an installed vapor recovery system and equipment must be compatible with:

(1) the application of performance specifications and test procedures;

(2) the existence of a two inch minimum inside diameter for vapor plumbing or a certified back pressure performance specification; and

(3) the installation, operation, and maintenance of any other aspects of the vapor recovery system or equipment associated with such dispensing facility.